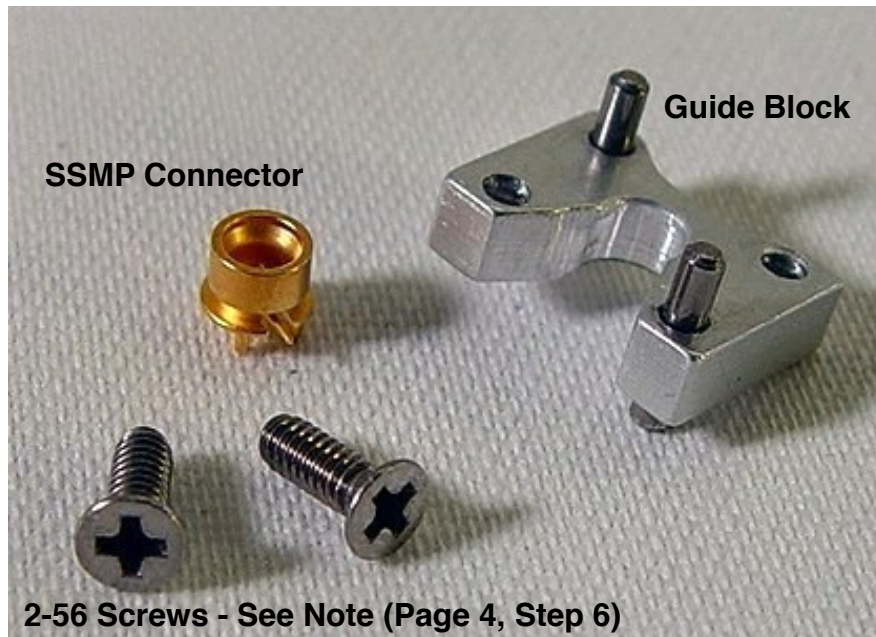


Assembly Instructions for Installing RIK0216A



Tools Needed:

Philips Screwdriver, Sharp Wire Cutters, Fine Tip Soldering Iron

Dependencies:

RIK0216A, RIK0217A, SimpleDIB (DUT Clamp and Pedestal Support), Top Plate

For more information:

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PCB Installation:

Step 1: Insert SSMP connector into DUT board as shown in Figure 1.

Step 2: Ensure the connector is pressed fully into the DUT board and trim legs so that approximately 0.01"/0.25mm of the pin is above the surface of the PCB board when the connector is fully inserted (Figures 2 and 3).



Figure 1

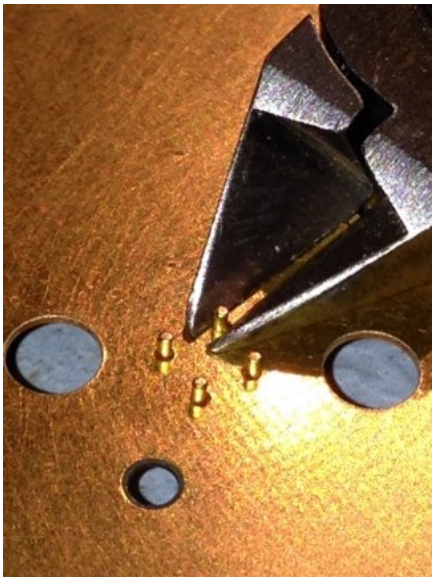


Figure 2

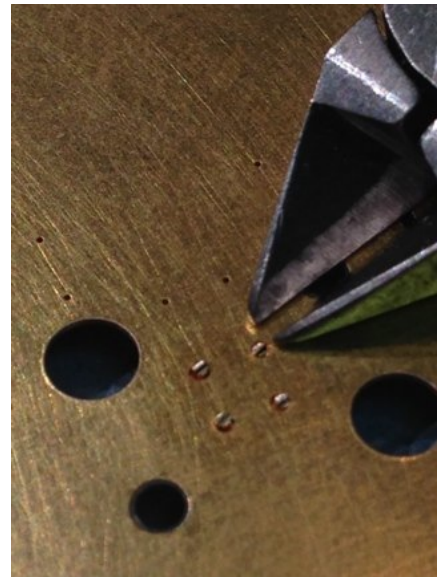


Figure 3

IMPORTANT: All solder joints on the connector must be uniform and use a minimal amount of solder to ensure proper performance. An over-abundance of solder will degrade the performance of the connector. Always use flux cleaner to clean the solder joints.

Step 3: Solder legs to ground plane of DUT board as shown in figure 4. Use minimal amount of solder. Review soldering technique in the reference section.

Step 4: Solder the connector body to the PCB connector pad that runs around the perimeter as shown in Figure 5 and Figure 6. Again use minimal amounts of solder and ensure solder joint is uniform.

Step 5: Solder the center connector. The solder joint must be uniform and use a minimal amount of solder to insure proper performance.



Figure 4



Figure 5



Figure 6

Step 6: Install guide block. Screw to DUT clamp with quantity 2, **2-56**, 100° Philips screws. NOTE: The screw length is determined by a combination of the PCB thickness and DUT clamp thickness. (see figure 7 & 8 for orientation).

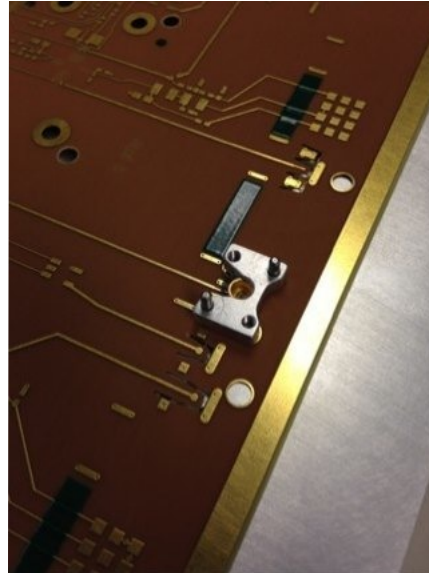


Figure 7

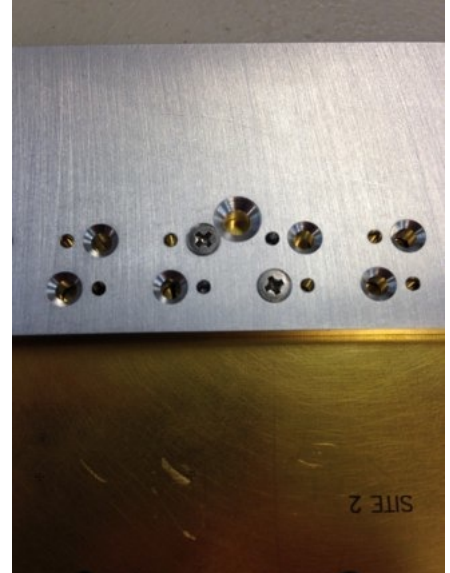


Figure 8

Step 7: After installing conductive elastomer into the pedestal support, the areas where the elastomer overlaps with traces, needs to be trimmed. See figures 9 and 10. **The elastomer is conductive and will short the trace to ground.**



Figure 9

These pins are for aligning to the SSMP Insert (RIK0217A) See page 5

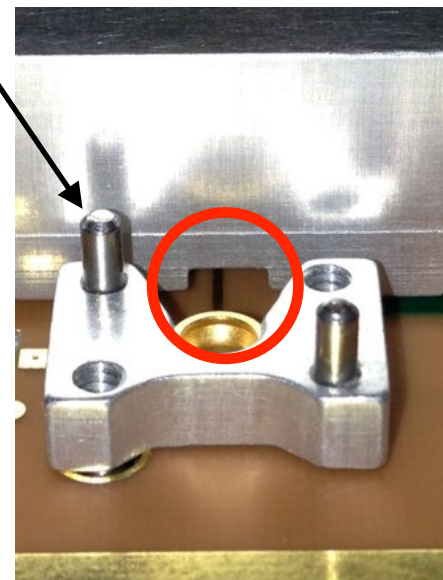


Figure 10

Mechanical Compliance:

As shown in the figure below, the alignment pins extend out of both sides of the guide block to provide mechanical compliance between the DUT board and SSMP connector when inserting and removing the DUT board assembly. The alignment pins extending towards the DUT board provide alignment of the soldered SSMP connector on the DUT board. The alignment pins extending away from the DUT Clamp mate with alignment holes in the SSMP Insert (RIK0217A) mounted on the fixture top plate to provide proper alignment.

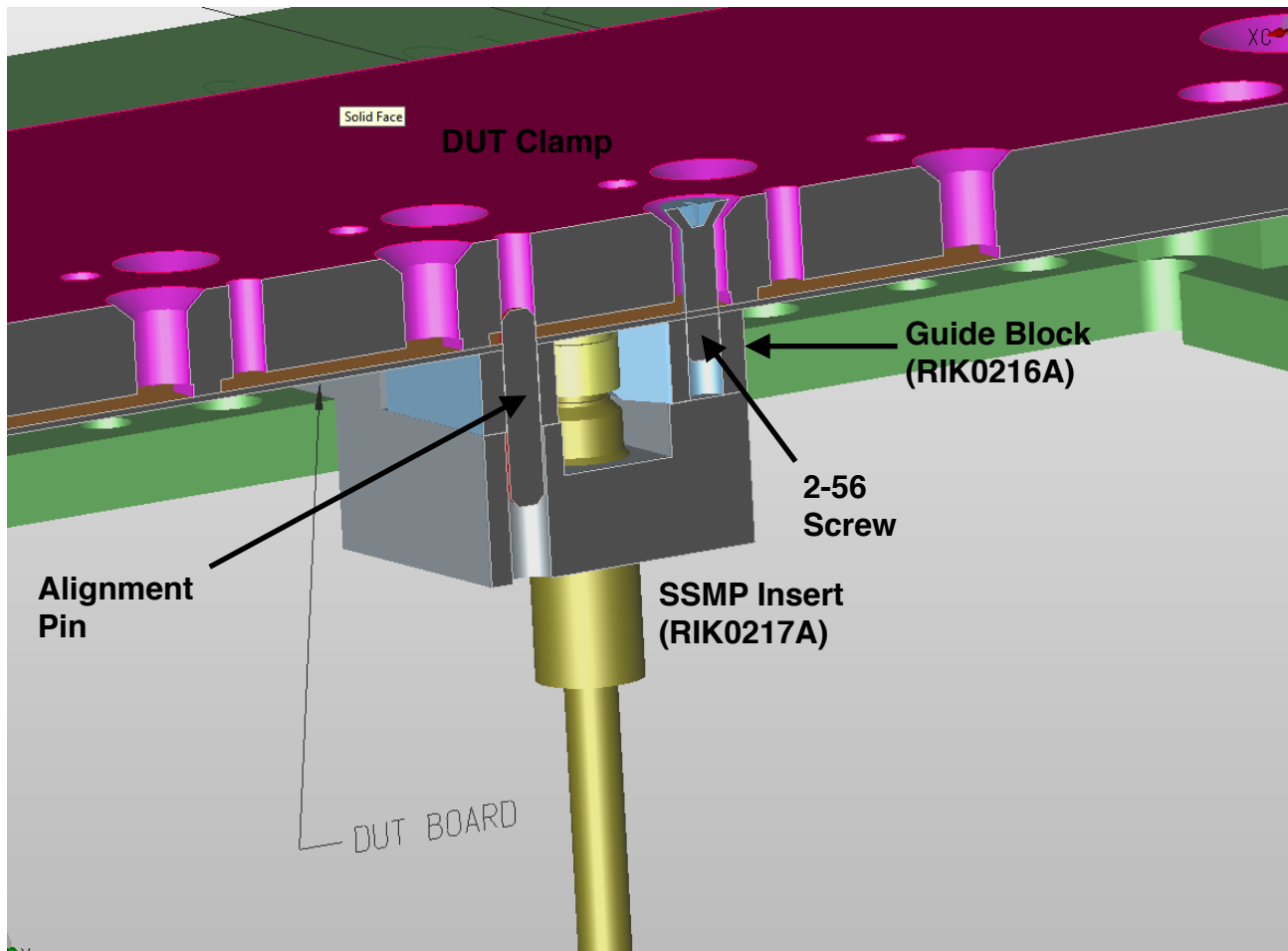


Figure 11

REFERENCE

Soldering Technique

A good solder joint has the 3 following qualities:

1. Good wetting
2. Correct amount of solder
3. Sound and smooth surface

Solder should flow evenly over the surfaces to be soldered and run out thinly towards the edges of the joints. The contact angle should be well under 30° if the surface is large enough. The solder should wet the entire periphery of the termination to be soldered and increase uniformly in thickness up to the termination.

Depending on the solder material, different temperatures should be used:

Material	Composition	Temperature
SnPb	63/37	183°C Lead Solder
SnPb	60/40	188°C Lead Solder
SnPbAg	62/36/2	179°C Lead Solder
SnAgCu	96.5/3.0/0.5	217°C Lead-free Solder
SnAg	96.5/3.5	221°C Lead-free Solder

When soldering with gold components, the following technique should be used to avoid “purple plague” (Gold-Tin/Lead Inter-metallic).

1. Tin the solder pads
2. Wick the solder away
3. Insert and solder part

For more information:

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